Welcome to the Biweekly Restoration Information Update Page. This web site

- Provides current information on wetland and river corridor restoration projects
- Recognizes outstanding restoration projects
- Provides a forum for information sharing

We welcome the submission of articles and announcements related to your restoration project. Just send your write-up to EPA's contractor at restorationupdate@tetratech-ffx.com or mail it to Kathryn Phillips, Biweekly Restoration Update Coordinator, Tetra Tech, Inc., 10306 Eaton Place, Suite 340, Fairfax, VA 22030. We will carefully consider your submission for inclusion in a future update. If your submission is selected, please note that it might be edited for length or style before being posted. Because this web site is meant to be a public forum on restoration information, we cannot post any information that is copyrighted or information that serves or has the appearance to serve as advocating or lobbying for any political, business, or commercial purposes.

Contents

Feature Article

Schools Plant Trees to Raise Enthusiasm for Riparian Projects
The Potomac Watershed Partnership (PWP) is expanding watershed education while helping to restore a creek in western Virginia. The PWP is a watershed restoration and stewardship venture involving the USDA Forest Service, the Virginia Department of Forestry, the Maryland Department of Forestry, Ducks Unlimited, and the Potomac Conservancy. The focus of the Partnership is large-scale land restoration and protection in the Antietam and Monocacy River watersheds in Maryland and in Virginia's Shenandoah River watershed. The Partnership's vision is to achieve healthy, diverse forests and grasslands; clean, clear water in abundant supply; a balance of open space and urban growth; and a satisfying quality of life for all residents.
One of the PWP's goals is to expand watershed education and monitoring. A recent watershed education project included orchestrating a tree planting and streamside-buffering project at rural Churchville Elementary School, located about 6 miles west of Staunton, Virginia. The school is adjacent to Whiskey Creek, a tributary of the Middle River, which eventually empties into the

south fork of the Shenandoah River. The Shenandoah River flows into the Potomac River, which empties into the Chesapeake Bay.
To raise enthusiasm for the riparian project and to help offset the costs, the school invited teachers and parents to purchase trees in the name of students or entire classes. Students were then able to plant their own trees along the stream and will be able to monitor the trees' growth and health over time. During the planting effort, students were taught about the importance of trees and buffer zones as a means to improve water quality and wildlife habitat. They received technical training as well, learning about how to use tree tubes and mats to protect roots during planting. Specific trees and shrubs were also chosen to attract birds and butterflies to the area, such as Norway spruce, dogwoods, and crabapple trees. The PWP is in the process of adding a sign to the location to explain the importance of buffer zones, as well as a bridge across the creek to allow easier access to the site.
One of the most important lessons that the PWP team taught the students, teachers, and volunteers, however, was that the creek restoration project is not complete. Students were taught about the dangers of forest fragmentation and that many more trees need to be planted along the creek in the coming years to help protect it. For more information, contact the Potomac Conservancy, 1730 North Lynn Street, Suite 403, Arlington, VA 22209. Phone: (703) 276-2777, Internet: www.potomac.org/pwp/index.html.
If you'd like your project to appear as our next Featured Article, e-mail a short description to restorationupdate@tetratech-ffx.com.

Top

Five-Star Restoration Projects Update

The goal of EPA's Five-Star Restoration Program is to bring together citizen groups, corporations, youth conservation corps, students, landowners, and government agencies to undertake projects that restore streambanks and wetlands. The program provides challenge grants, technical support, and peer information exchange to enable community-based restoration projects. A few Five-Star Restoration Program projects are being revisited to see if the modest amount of funding (between $5,000 and $20,000) has helped the local restoration partners achieve their goals.
Project Name: Eagle River Watershed Wonders
Five Star Grant: $10,250
Grant to: Anchorage School District
Project Location: Eagle River, Alaska
Original Project Description:
The Anchorage School District and partners will restore riparian habitat along the banks of the Eagle River, which supports all five species of Pacific salmon in addition to resident populations of rainbow trout. The project, known as "Watershed Wonders," will bring together fourth-grade students from Ravenwood Elementary School with experts from Chugach State Park, the Anchorage Waterways Council, federal resource agencies, and others to promote stewardship of the Eagle River watershed through the restoration project. As part of their involvement, students will learn scientific methods for collecting water samples and monitoring fish populations and will gain an ecological understanding of human activities that affect the health of the watershed. Partial funding for this grant is being provided by the National Marine Fisheries Service Community-based Restoration Program.
Project Update:
On May 24, 2001, teachers and students from Ravenwood Elementary's fourth grade helped restore a portion of the Eagle River riparian zone located at the Eagle River Campground. With support from Gay Muhlberg, Alaska Department of Fish and Game, and her professional volunteer team, the group

- Installed 20 feet of coir log with layered willow cuttings and a layer of vegetative mat.
- Extended vegetative mats along 75 feet at the edge of the bank in preparation for installation of a walkway (and next year's coir log/willow installation).
- Spread topsoil over work done the year before.

- Transplanted additional spruce and birch seedlings to the restored site.

The group also prepared the site for an elevated light penetrating (ELP) walkway. Chugach Park maintenance employee Darren Rathbun will install the walkway, using ELP sections purchased with grant money and understructure metal donated by Phillip's Petroleum. The walkway will be complete before May 2002, when the next phase of the fourth graders' riparian project will begin. The May 2002 project will include restoration of the area immediately adjacent to the walkway and additional improvements to previous work areas. The fourth graders also hope to install permanent fencing on the campground to control access to the river and protect the areas they previously restored.

Individuals in the community have also contributed to the project. For example, Elisa Van Cise, a Senior Girl Scout with the Susitna Council, worked on the project for her Girl Scout Gold Award. She installed two kiosks on-site and developed four informational bulletin boards detailing the extensive list of sponsors, details about the project, and information about the different techniques used in the restoration process.

For more information on EPA's Five-Star grant program, visit http://www.epa.gov/owow/wetlands/restore/5star/.

Top

Community-Based Restoration Partnerships

Friends of Sausal Creek, California, Improve Watershed

The Friends of Sausal Creek are undertaking an ambitious project to restore a portion of Sausal Creek, which flows from the hills of Oakland, California, to San Francisco Bay. The Friends are a group of residents, teachers, students, merchants, and elected officials working together with the City of Oakland and County of Alameda to improve the Sausal Creek watershed. The group is active in creek maintenance, water quality monitoring, and creek improvement activities. This past summer the City of Oakland restored the Sausal Creek stream channel in the Dimond Canyon area. The restoration project activities included removal of in-stream structures, reshaping of the creek channel, and revegetation. First, consultants hired by the city removed one 5-foot concrete check dam and spillway and two metal and concrete debris racks. The structures were removed to encourage natural erosional and depositional processes, which are critical to dynamic in-stream habitats and to allow uninhibited movement of aquatic wildlife. Once these structures were removed, channel was realigned and regraded the existing channel to reestablish a natural profile, the bankfull channel, and functioning floodplain.

Once the banks were regraded, the Friends worked to stabilize them. They used on-site cut soil material and specific soil bioengineering techniques such as brush layering and live willow pole cuttings. They also installed erosion control fabric (100 percent coir material) on the banks. Large boulders were used to anchor the toes of slopes, particularly in areas more vulnerable to erosion, such as areas of fill or the outside bends of the realigned channel meander.

In addition to the live brush material and pole cuttings used in the bank stabilization process, the Friends are continuing to revegetate the upper banks of the restored area with native riparian species, many of which they are propagating from cuttings in the watershed. In total, the Friends hope to plant at least 20,000 native plants, including more than 30 species of forbs, shrubs, and trees, by April 1, 2002. The Friends will hold frequent workdays between now and then to help reach their goal. For more information, see http://www.sausalcreek.org/ or contact Anne Hayes at the Aquatic Outreach Institute, 1327 South 46th Street, Richmond Field Station, #155, Richmond, CA 94804; phone: (510) 237-0663.

Community Fun Days Generate Volunteers

The Mono Lake Committee (MLC), a nonprofit organization dedicated to the protection and restoration of Mono Lake, hosted its annual "Restoration Days" on August 31 through September 2, 2001. Located just east of Yosemite National Park near Lee Vining, California, Mono Lake provides vital riparian, lakeshore, and aquatic habitat for millions of migratory and nesting birds. Since 1941 the lake's level has dropped significantly as a result of water diversions to the city of Los Angeles. These diversions have damaged the Mono Basin ecosystem, including the native

plants that sustain the local food chain. For more than 20 years the MLC has been working to protect Mono Lake from excessive water diversions, to heal the damage done to the lake and its tributary streams, and to educate the public about wise water use and the diversity of the natural environment.

Every year MLC holds the Restoration Days event to celebrate its historic and continuing restoration efforts. Enjoyable events for the family typically include canoe tours, presentations, fly-fishing creek walks, swimming, a sidewalk sale, and other events. This year Restoration Days focused on the health of the riparian corridors of Rush Creek and Lee Vining Creek, vital parts of the Mono Basin ecosystem. During the event, the MLC hosted a hands-on "Native Plant Workshop," featuring the unique plants of the Mono Basin. Interactive discussion and a tour focused on the damage done by water diversions and the invasion of nonnative plant species. To follow up the workshop, scientists and MLC staff enlisted the help of the public in eradicating the invasive, nonnative tamarisk plant from the riparian areas along the Rush Creek delta. For more information, see www.monolake.org or contact the MLC at (760) 647-6595, or by e-mail at info@monolake.org.

If you are part of an innovative community-based partnership that is working to restore river corridors or wetlands, we'd like to hear from you. Please send a short description of your partnership to restorationupdate@tetratech-ffx.com.

Top

Achieving Restoration Results

Prescribed Burning Benefits Grand Bay's Preservation

Grand Bay is a coastal wetland along the northern Gulf of Mexico located in Jackson County, Mississippi, and southern Mobile County, Alabama. The bay supports as many as 20 natural community types, including estuarine tidal marsh, shallow-water open bay, wet pine savanna, and coastal swamp habitats. As development has increased along the Gulf of Mexico as much as 97 percent of the natural wetlands in this area have been altered or lost. One of the main changes affecting the coastal wetlands is the reduction of natural fires.

To provide the benefits to wetlands that were once provided by wildfires, The Nature Conservancy is reintroducing fire into the ecosystems through the use of prescribed burns. These planned fires reduce the incidence of wildfire, control invasive species, promote new growth and biodiversity, and maintain freshwater flow into the wetland. With the help of the Grand Bay National Estuarine Research Reserve, Grand Bay National Wildlife Refuge, and the State of Alabama, The Nature Conservancy has implemented a fire management program on public lands. The Conservancy also encourages private landowners to develop and implement their own fire management systems.

Throughout the Grand Bay area, The Nature Conservancy is training local citizens about the benefits and techniques of prescribed burning. Workshops are held to inform the public about the benefits of prescribed burning, and training sessions teach local firefighters and volunteers to manage the burns safely and effectively. To learn more about the Grand Bay area, visit http://www.nmfs.noaa.gov/habitat/restoration/projects_programs/crp/index.html or www.csc.noaa.gov/pagis/html/gby.htm. For more information on the prescribed burning program sponsored by the The Nature Conservancy, visit www.tncfire.org.

Wetland Management Increases Flood Control and Wildlife Habitat

For 20 years a wetland on Gary Alberts' property remained untouched and undisturbed. The wetland was part of the Waterbank Program, a program sponsored by the U.S. Department of Agriculture that payed farmers for setting aside wetlands on their property. Once the 20 year contract expired, Gary Alberts decided to farm the land adjacent to the wetland. Early that spring, a rainstorm flooded both the new farmland and some adjacent fields.

Armed with the understanding that wetlands could absorb excess water, Alberts met with a bio-engineering Team comprised of staff from the U.S. Fish and Wildlife Service, Nebraska Game and Parks Commission, Natural Resources Conservation Service and the Natural Resources District. The team came up with a plan to pump water from the cropland into the wetland.

The team modified the wetland by adding dikes around its boundaries to contain the water and adding one way culverts that allowed water to flow into the wetland but not out. The modified wetland was managed to improve migratory wetland habitat. Trees were removed from the perimeter of the wetland to make it more appealing to migratory waterfowl, and shallow water habitats were created through the removal of sediment deposits. The newly managed wetland now serves as a necessary stopping point to a variety of migratory waterfowl. For more information, visit www.ngpc.state.ne.us/wildlife/rwbjv/alberts.html.
If you are part of an innovative restoration project that has had positive results, we'd like to hear from you. Please send a short description of your project to restorationupdate@tetratech-ffx.com.

Top

Funding for Restoration Projects

New Listings:
NRCS Watershed Protection and Flood Prevention Program
The Small Watershed Program works through local government sponsors and helps participants solve natural resource and related economic problems on a watershed basis. Projects include watershed protection, flood prevention, erosion and sediment control, water supply, water quality, fish and wildlife habitat enhancement, wetlands creation and restoration, and public recreation in watersheds of 250,000 or fewer acres. Both technical and financial assistance are available. For more information visit www.nrcs.usda.gov/NRCSProg.html and look under Watershed Protection and Flood Prevention.
Interagency Committee for Outdoor Recreation: Washington Wildlife Recreation Program
The Washington Wildlife Recreation Program (WWRP) provides funds for the acquisition and development of recreation and conservation lands. WWRP funds are administered by account and category. The Habitat Conservation Account includes critical habitat, natural areas, and urban wildlife categories; the Outdoor Recreation Account includes local parks, state parks, trails, and water access categories. For more information contact the Interagency Committee for Outdoor Recreation, P.O. Box 40917, Olympia, WA 98504; (360) 902-3000; e-mail: info@iac.wa.gov.
National Environmental Education and Training Foundation
The National Environmental Education and Training Foundation (NEETF) awards 1-year environmental challenge grants for visionary and proactive environmental education and training projects that leverage resources and bring focus to the fields of environmental education and training. Grants are given to incorporated 501(c)(3) organizations only. Call (202) 833-2933 to discuss proposal ideas or write NEETF, 1707 H Street, NW, Suite 900, Washington, DC 20006. Information is also available on the web site www.neetf.org.
NAWCA Small Grant
The U.S. Fish and Wildlife Service's Division of Bird Habitat Conservation in Washington is accepting NAWCA small grant applications through November 30. These grants are for dollar requests of up to $50,000 to benefit wetland habitats and migratory birds. Partnerships and non-federal matches are required. All information and application materials for this program are available at http://birdhabitat.fws.gov.
Please send any news you have on funding mechanisms available to local community organizations to restorationupdate@tetratech-ffx.com.

Top

News and Announcements

Call for Nominations for 2002 National Wetlands Awards
Nomination forms are available from the Environmental Law Institute for the 2002 National Wetlands Awards. The deadline for submitting nominations is December 15, 2001. Awardees demonstrate extraordinary effort, innovation, and excellence in wetland conservation, research, or education through programs or projects at the regional, state, or local level. All awards are made

to individuals, not to organizations. (Please note that federal employees are not eligible for recognition in this program.) The five categories for the National Wetlands Awards are Education/Outreach, Science Research, Volunteer Leadership, Land Stewardship and Development, and Outstanding Wetlands Program Development. A selection committee composed of wetland experts drawn from business, conservation organizations, and state and federal government will select the winners from among nominations received. The 2002 National Wetlands Awards nomination form is at www.eli.org/nwa/nwaprogram.htm. For more information about the awards program, e-mail wetlandsawards@eli.org.

$3.5 Million Supports Invasive Species Research

According to the Environmental News Service research grants totaling more than $3.5 million have been awarded to seven universities and one nonprofit agency to study invasive species in the United States. Invasive species, such as the zebra mussel and the tamarisk tree, cause irreversible environmental changes and have displaced many native plants and animals, causing massive economic and natural resource losses.

Great Dismal Swamp to Receive Comprehensive Conservation Plan, Wilderness Review

According to an October 9, 2001, Federal Register notice, the U.S. Fish and Wildlife Service intends to begin preparation of a Comprehensive Conservation Plan (CCP) for the Great Dismal Swamp National Wildlife Refuge (NWR) in Virginia and North Carolina. A Wilderness Review of Great Dismal Swamp NWR will also be completed concurrently. The Great Dismal Swamp National Wildlife Refuge encompasses some 109,000 acres of marshes, wooded wetlands/swamps, and open water. Comments on the protection of threatened and endangered species and migratory birds and the protection and management of their habitat will be solicited as part of the planning process. For complete details visit http://frwebgate3.access.gpo.gov/cgi-bin/waisgate.cgi?WAISdocID=23825212246+0+0+0&WAISaction=retrieve

[NOTE: If this link does not work, go to the GPO Federal Register Search page and search for "dismal swamp" and October 9, 2001].

Interior Bill Carries Anti-Environmental Riders

According to an October 12, 2001, Environmental News Service news release, several anti-environmental riders have been attached to the 2002 Interior Appropriations bill this week, threatening national forests, parks, and other public lands. Environmentalists are encouraged, however, by the funding levels outlined in the bill, which would significantly boost federal spending for land and wildlife conservation and other environmental programs.

$6.3 Million Protects Green Swath in Maryland

On September 28, 2001, Maryland Governor Parris Glendening pledged $6.3 million to purchase and preserve 1,271 acres of mature forest, 90 acres of wetlands, and 1.8 miles of Potomac River shoreline. The funding from the state's GreenPrint program will protect a major portion of Douglas Point in Charles County.

Connecticut Awards More Than $146.2 Million For Environmental Projects

Connecticut Governor John G. Rowland, Chairman of the State Bond Commission, approved more than $146.2 million for environmental projects, including acquisition of open space areas, improvements to state parks, and construction of a wastewater treatment facility in Stamford. The Department of Environmental Protection (DEP) requested the funds in support of the DEP's commitment to preserving and protecting open space, upgrading the infrastructure of the state park system, ensuring clean water, and completing environmental remediation and renovation projects statewide. For the complete press release, visit www.dep.state.ct.us/whatshap/press/2001/ps0928.htm.

Top

Upcoming Conferences and Events:

NEW LISTINGS:

Center for Urban Restoration Ecology Workshop Series:
Ecology & Control of Invasive Plant Species

October 15 & 16, 2001
New Brunswick, New Jersey
October 25 & 26, 2001
Brooklyn Botanic Garden

Invasive species are a common problem for anyone who manages preserves or parks, maintains wildlife habitat, or restores wetlands. This 2-day program will bring together leading ecological restoration experts, who will share valuable information and techniques on how to manage and control invasive species. The biology of invasive species, the nutrients and soil they require, and methods for controlling them will be discussed.

Creeks, Wetlands, and Watersheds

November 3-17, 2001

Richmond, California

The 12th annual conference sponsored by the Aquatic Outreach Institute will take place as a series of Saturday workshops. Workshops will address topics such as the educational value of wetlands, restoring wetlands, and amphibians. Workshops are open to educators and the public and may count for academic credit. To view the workshop flier and for registration information, visit www.aoinstitute.org/conference/Conf01RegistrationFlyer.pdf [Link no longer available, October 2003].

Brown Fields & Gray Waters: Case Studies of Reclamation Processes & Design Practices

November 9-12

Cambridge, Massachusetts

This conference, held at Harvard University, is open to anyone who is interested in learning, sharing, promoting, and integrating knowledge and experience in various aspects of the design and planning of restoring and remediating degraded environments. For additional information visit www.gsd.harvard.edu/news/conferences/restoration.

A Watershed Event: Flooding, Development, and Habitat on the Houston Gulf Coast

November 14, 2001

Houston, Texas

This conference will explore the reasons for the flooding problems experienced by Houston's vast network of hundreds of rivers, bayous, streams, and creeks. The conference will discuss:

- Flooding on the Gulf Coast: history and prospects
- Green Infrastructure: what it is and what it does
- Building a More Livable Houston: focus on quality of life
- Successful Green Developments: case studies
- Preserving Floodplains: regulations and incentives

For more information visit www.watershedevent.org.

Rivers Forum

November 16-17, 2001

Raleigh, North Carolina

Sponsored by American Rivers, the National Park Service's Rivers and Trails Conservation Assistance Program (RTCA), and North Carolina State University, this conference offers the opportunity for river groups and advocates to share strategies for river conservation. Individuals are invited to meet one-on-one with RTCA staff and American Rivers staff with expertise in wild and scenic rivers, hydropower relicensing, the Clean Water Act, dam removal, Army Corps of Engineers reform, and ecological designs for community riverfronts. For more information contact Kristen McDonald at American Rivers, (202) 347-7550, kmcdonald@amrivers.org, or see www.amrivers.org/calendar/default.htm.

Summer Institute in Coastal Management 2002

May 27 - June 21, 2002

Narragansett, Rhode Island

This month-long, intensive training is available to coastal management professionals. It will be conducted by the Coastal Resources Center (CRC) at the University of Rhode Island. Participants will learn tools and techniques to help them successfully handle the multifaceted challenges found when dealing with coastal areas. For more information visit http://crc.uri.edu/train/SI2002_app.html, or contact Coastal Resources Center, Narragansett Bay Campus, University of Rhode Island, Narragansett, RI 02882. Phone: (401) 874-6224; e-mail: communications@crc.uri.edu.

PREVIOUS LISTINGS

Wetlands Regulatory Workshop

October 30-November 2, 2001

Atlantic City, New Jersey

U.S. Environmental Protection Agency Region 3 is sponsoring the Fourth Annual Wetlands Regulatory Workshop. This workshop will investigate contemporary wetland regulatory issues and will work to increase dialogue and foster partnerships among federal, state, and local regulatory agencies, nongovernmental organizations, and the regulated community. The workshop will address TMDLs and wetland protection, isolated waters, new nationwide permits, development of state wetland programs, delineation and identification tools, and regional general permits. Representatives from federal, state, and local governments; academia; nongovernmental organizations; and the private sector are encouraged to attend. For more information visit www.sws.org/training/listings2001/May21-01F10D28B5.html.

Stream & Floodplain Management in Urbanizing Watersheds

October 29-30, 2001

Tampa, Florida

The Association of State Floodplain Managers is hosting a workshop for local government, state, and federal agency staff, nonprofit organizations, academics, consultants, landowners, and others who work with streams in urbanizing watersheds. The first day of the workshop will provide background on stream management and restoration efforts undertaken to date throughout Florida and the nation. The day will begin with an overview of restoration engineering, fluvial geomorphology, and soil bioengineering design methods and introduce restoration processes and methods pertinent to urbanizing watersheds. The second day will discuss the concepts and methods for designing stream restoration projects, review recent cases in innovative stream management and restoration project design, and tour local stream sites. For more information visit www.floods.org, or contact the Association of State Floodplain Managers, 2809 Fish Hatchery Rd., Madison, WI 53713, (608) 274-0123.

63rd Midwest Fish & Wildlife Conference: Transitions in the Conservation Landscape

December 9-12, 2001

Des Moines, Iowa.

This conference will focus on changes in habitat, especially fragmentation and biodiversity; how natural resource agencies have responded to the change; and how to protect the resources for the future. Several general sessions scheduled throughout the conference will address wetland-related concerns. For registration forms and more complete information, visit the conference web site at www.state.ia.us/midwest2001.

AWRA Spring Specialty Conference: Coastal Water Resources

May 13-15, 2002

New Orleans, Louisiana

The American Water Resources Association (AWRA) is sponsoring a conference directed toward coastal and water resources engineers, scientists, and managers who address a wide range of interdisciplinary concerns about coastal, estuarine, and inland systems. For more information, visit www.awra.org/meetings/Louisiana2002/ [Link no longer available, October 2003].

Third National Water Monitoring Conference: Building a Framework for the Future

May 20-23, 2002

Madison, Wisconsin

The National Water Quality Monitoring Council is sponsoring this conference, designed to foster interaction, information sharing, and innovation among colleagues involved in all aspects of water monitoring, including a focus on biological monitoring and wetland concerns. For more information, visit www.nwqmc.org.

To post your restoration news and announcements, please send information to restorationupdate@tetratech-ffx.com.

Top

Restoration-Related Web Sites

Let us know about your restoration-related web site. Please send relevant URLs to restorationupdate@tetratech-ffx.com.

www.nationalgeographic.com/resources/ngo/education/geographyaction/index.html

> *Geography Action!* is a program sponsored by *National Geographic* that is designed to educate and excite people about natural, cultural, and historic treasures. *Geography Action!* Rivers 2001 provides young people with a variety of hands-on conservation activities ranging from writing poetry to stenciling storm drains–all designed to help protect and restore river habitats. The web site also provides a list of river organizations that partnered with National Geographic to create the Rivers 2001 program. *This site would be useful for educators wishing to incorporate river awareness into their curriculum.*

www.rivernetwork.org/library/resource/index.cfm

> Rivers Network provides a searchable resource library from its web site. Searches can be performed by keyword or category. Information is available on fundraising, river issues, networking, publications, river conservation approaches, and quotes and video clips. *This site provides access to a wide range of river restoration materials.*

www.savelawetlands.org/cmdpage.html

> This web site offers information about the Louisiana Department of Natural Resources Coastal Management Division's Save Louisiana's Wetlands program. The many facets of the program are outlined in detail. *This site would be useful for anyone interested in wetland protection, particularly along the coast of the Gulf of Mexico.*

www.longfellowcreek.org

> This web site details the efforts of a Seattle, Washington community to maintain and improve Longfellow Creek. The site provides numerous resources, including educational materials, data, and maps. *This site would be useful for anyone interested in urban stream restoration.*

www.coloradoriparian.org

> The Colorado Riparian Association strives to promote protection and restoration of Colorado's riparian areas and wetlands. This web site features a listing of on-line riparian resources and a quarterly newsletter describing local riparian projects. *This web site would be useful for anyone looking for examples of riparian projects undertaken in the southwestern United States.*

www.rwrp.umt.edu

> The University of Montana's Riparian and Wetland Research Program web site offers comprehensive educational information, including photographs of types of wetlands and riparian areas, photographs of ecosystem health assessments, and lists of appropriate plant species. *This site would be useful for anyone looking for photographs or general information about wetlands or riparian areas in Montana.*

http://coweeta.ecology.uga.edu/webdocs/1/schoolyardlter.htm

Coweeta Long-Term Ecological Research (LTER), sponsored by the National Science Foundation's Division of Environmental Biology, examines ecological phenomena that occur on time scales of decades or centuries. The Coweeta LTER program has continued to emphasize the importance of education while maintaining a strong research program. This web site offers information on restoration and other projects that have been incorporated into education programs for all ages. This site is useful for anyone interested in restoration education.

www.ohiowetlands.org

The Ohio Wetlands Foundation, a nonprofit organization, was formed in 1992. The Foundation restores and enhances land that was previously environmentally sensitive wetland; provides cost-effective, high- quality, wetland off-site compensatory mitigation credits; and funds wetland research and education. *This site would be useful to people interested in donating Ohio wetlands for restoration and for those interested in mitigation banking.*

www.nearctica.com/index.htm

The Nearctica web site serves as a gateway to the natural world of North America. It includes information on plants, animals, and the physical environment of North America. Topics vary widely and include things such as wetland restoration and mitigation banking, grassland restoration, various ecosystem types, education, home and yard pests, butterflies, birds, weather, dinosaurs, and biking. The site also offers links to other relevant and reputable information sources. *This site would be useful for anyone seeking general information on ecosystems, ecosystem protection, and nature topics in general.*

Top

Information Resources

Wetland Plants: Biology and Ecology
by Julie K. Cronk and M. Siobhan Fennessy
2001, 488 pages, published by CRC Press
Available for either $81 or $90 (depending on membership status), this publication offers a detailed account of the biology and ecology of vascular wetland plants and their applications in wetland plant science. To order please visit www.aswm.org/books/crc3727.htm [Link no longer available, October 2003].

ACOE Releases New Wetland Publications
The U.S. Army Engineer Research and Development Center recently posted three updated chapters for its publication *Hydrogeomorphic Approach to Assessing Wetland Functions: Guidelines for Developing Regional Guidebooks*. These chapters include:

1. *Chapter 3: Developing a Reference Wetland System* by R. Daniel Smith, available at http://libweb.wes.army.mil/uhtbin/hyperion/EL-TR-01-29-3.pdf
2. *Chapter 4: Developing Assessment Models* by R. Daniel Smith and James S. Wakeley, available at http://libweb.wes.army.mil/uhtbin/hyperion/EL-TR-01-30-4.pdf
3. *Chapter 7: Verifying, Field Testing, and Validating Assessment Models* by James S. Wakeley and R. Daniel Smith, available at http://libweb.wes.army.mil/uhtbin/hyperion/EL-TR-01-31-7.pdf

Colorado Riparian Association Offers New Publication

The Colorado Riparian Association has just published *A Driving Guide to Riparian and Wetland Restoration in Colorado*. The 101-page guide includes 87 full-color plates in a handbook format. It features 46 projects, with two pages devoted to each project, generally with one page of text and one of color photographs showing the project site before and after restoration. The book is easy to read and contains a minimum of technical jargon. You may purchase a copy of the *Driving Guide* for $6 postpaid. The low price of the book is made possible by a grant from the U.S. Environmental Protection Agency. Make your check payable to the Colorado Riparian Association and send it to: Colorado Riparian Association, 2060 Broadway, Suite 230, Boulder, CO 80302. Attn: Gwen Kittel. For more information see www.coloradoriparian.org/DrivingGuide.html.

If you'd like to publicize the availability of relevant information resources, please send information to restorationupdate@tetratech-ffx.com.